

PATENT SPECIFICATION

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(54) ADJUSTABLE CHAIR

(71) We, STELLA-MOEBELWERK GMBH., of 1 Waldweg, 478 Lippstadt, Germany; a German body corporate do hereby declare the invention, for which we pray that a patent may be granted to us, and the method by which it is to be performed, to be particularly described in and by the following statement:—

The invention relates to an adjustable chair having a fixed main frame and a plurality of auxiliary frames adapted to be pulled out to form a reclining surface.

A couch or chair is known having a main frame from which a plurality of auxiliary frames may be pulled out telescopically to produce a double bed. A supporting surface for a pillow is provided by a wedge-shaped frame.

The present invention provides a supporting surface for a pillow without the use of such a wedge in the reclining position.

According to the present invention, there is provided an adjustable chair comprising a main frame having a back portion, a plurality of auxiliary frames and an intermediate frame, said auxiliary frames and intermediate frame being each adapted to be extended telescopically with respect to the main frame, a cushion frame hingedly connected to the intermediate frame and supported on guide devices attached to the back portion of the main frame, by means of which guide devices said cushion frame forms an inclined supporting surface for a cushion on extending said auxiliary frames and said intermediate frame with respect to the main frame to form a fully reclining position of said chair and on either collapsing of the intermediate frame with respect to the main frame, whilst leaving said auxiliary frames extended, to form a partially reclining position of the chair or on collapsing of the intermediate frame and the auxiliary frames with respect to the main frame to form a sitting position of the chair, the cushion frame is guided by the guide devices into a position within the back portion of the frame.

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Advantages of the invention are the relatively simple design and easy manipulation. Side parts such as arm rests may be fitted but are not specifically required. Any number of units may be attached side by side, so that an extendable chair may be combined with other non-extendable chairs of the same basic shape.

The invention will be further described partly by way of example, with reference to the accompanying drawings, in which:

Fig. 1 shows a side elevation of a chair partially in section, in an upright or sitting position,

Fig. 2 is a corresponding view of the chair of Fig. 1 in a partially reclining position,

Fig. 3 is a similar view to Fig. 2 showing the chair in a fully reclining position, and

Fig. 4 is a plan view of the framework and frame of the chair in its fully reclining position.

A chair comprises a fixed main framework 10 having a back portion 11 and a base portion 12, and feet 15. Guide rails 13 are provided on the base portion, and guide rails 14 are provided on the back portion 11.

An intermediate extension frame 20 is displaceably mounted on the base portion 12 of the framework. The frame 20 is provided with rollers or castors 22, which run in the guide rails 13 of the base portion. The intermediate frame 20 is also provided with guide rails 21, front castors 23 and a covering 25.

A front extension frame 30 having rear castors 31, upper guide rails 32, lower guide rails 34 and feet 33 is displaceably mounted on the intermediate frame 20.

On the front extension frame 30, an upper extension frame 40 having castors 41, a covering 42 and a catch 43 is provided.

There is also a cushion frame 50 the front end of which is hingedly connected at 51 to the intermediate frame 20. The rear end of the frame 50 is guided, by means of castors 52 in the guide rails 14 of the back portion. The cushion frame is also provided with a covering 53.

Further components of the chair are two cushions 60 and 61 which are hingedly connected at 62, and a back cushion 63.

Fig. 1 shows the chair in a sitting position. The frames 20, 30 and 40 are telescoped together. Intermediate frame 20, front frame 30 and upper frame 40 are located over the base part 12 of the framework 11. The two cushions 60 and 61 are placed one on the other on the upper frame 40, and the back cushion 63 is supported on the cushion 60 or on the back part 11 of the framework.

Fig. 2 shows the partially reclining position. The upper frame 40 and front frame 30 are extended the latter being supported on the floor by the feet 33, whilst the upper frame projects freely. The intermediate frame 20 is not extended, but is still located over the base part 12 of the framework, where it is retained by a catch. The cushion frame 50 is also located by the back part 11 of the framework. The two cushions 60 and 61 are unfolded and cover the upper frame, front frame and intermediate frame. The back cushion 63 assumes the same position as in the sitting position shown in Fig. 1. In this position the chair may be used with the legs of the user stretched out.

Fig. 3 shows the fully reclining position. To reach this position the upper frame 40 is gripped, lifted slightly to release the catch, and pulled further to the front. This also causes the intermediate frame 20 to be extended. In this extended position it is supported on the floor by the feet 24.

The intermediate frame 20 is connected by means of a hinge 51 to the cushion frame 50 in the inclined position shown, where it serves as supporting surface for a cushion for which purpose a back cushion 63 may be used. The cushion frame is guided by means of casters 52 in bent rails 14 which form part of the back. When collapsing the frame, the cushion frame assumes the position shown in Fig. 1, where it is concealed by the back part 11 of the framework.

To secure the chair in its various positions, catches may be provided between the frames, e.g. between the front frame and the intermediate frame. A catch is also provided between the main framework and the intermediate frame. By this means the intermediate frame 20 remains over the base part 12 of the framework during conversion

from the sitting position shown in Fig. 1 into the part-reclining position of to Fig. 2. This catch engagement is only released during further extension of the front frame 30.

To provide a supporting surface for the cushions 60 and 61 the cushion frame 50, intermediate frame 20 and upper frame 40 are provided with coverings 53, 25 and 42.

WHAT WE CLAIM IS:—

1. An adjustable chair comprising a main frame having a back portion, a plurality of auxiliary frames and an intermediate frame, said auxiliary frames and intermediate frame being each adapted to be extended telescopically with respect to the main frame, a cushion frame hingedly connected to the intermediate frame and supported on guide devices attached to the back portion of the main frame, by means of which guide devices said cushion frame forms an inclined supporting surface for a cushion on extending said auxiliary frames and said intermediate frame with respect to the main frame to form a fully reclining position of said chair and on either collapsing of the intermediate frame with respect to the main frame, whilst leaving said auxiliary frames extended, to form a partially reclining position of the chair or on collapsing of the intermediate frame and the auxiliary frames with respect to the main frame to form a sitting position of the chair, the cushion frame is guided by the guide devices into a position within the back portion of the frame.

2. A chair according to claim 1, wherein two cushions hingedly connected to one another are provided, said two cushions being supported, one above the other, by one of the auxiliary members in the sitting position of the chair and arranged in end to end relationship and supported on respective ones of the auxiliary frames in both the partially reclining and fully reclining position of the chair.

3. A chair according to claim 1 or 2, wherein a back cushion is supported by said back portion in the sitting and partially reclining positions of the chair and by said cushion frame in the fully reclining position of the chair.

4. A chair substantially as described with reference to the accompanying drawings.

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